OUTLINE SPECIFICATION

THORIUM AND LEAD INVESTIGATIVE WORK PLAN AT 319 EAST ILLINOIS STREET CHICAGO, ILLINOIS

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I. Introduction

Recent Environmental Studies at 319 East Illinois Street in Chicago, IL (Site) have shown a single boring sample with an elevated lead level exceeding Federal RCRA cleanup standards, and a single boring sample exceeding USEPA radioactive material cleanup standards. As Owner of the Site, it is HBE's intent to further investigate the type and extent of these materials on the Site during general construction; coordinate all environmental issues with the appropriate regulatory agencies, City of Chicago, and all effected parties; and to seek USEPA approval of an Investigative Work Plan. This Document presents the Outline Specification for a thorium and lead Investigative Work Plan. This Outline is prepared for the purposes of review by the regulatory agencies, and for determining financial estimates for future construction.

II. Site Description

The "Site" is located at 319 East Illinois Street in Chicago, IL. It is bounded by East Illinois Street on the north, North Water Street on the south, North Park Drive on the west, and New Street on the east. Appendix "A" contains a Plat of Survey (dated February 3, 2000) identifying the Site location and legal description of the Parcels, 1903 through 1994 Sanborne maps, City of Chicago "Streeterville Thorium Investigation" map, and Chicago "City Front Center" maps. The Site encompasses 5 Parcels: Parcel 1, which runs through the center of the Site, and the northeast portion of Parcels 3 and 5, were previously part of the Ogden Slip (also known earlier as the Michigan Canal). These areas and the location of the Ogden Slip are delineated in the Sanborne Maps and on the February 2000 Plat of Survey (Appendix "A"). Photographs of the Site are also included in Appendix "A".

III. Site History

According to Sanborne Maps dated 1903, 1906 and 1927, and previous environmental studies, the land was occupied by the Canada Atlantic Transit furniture warehouse south of the Michigan Canal, and P.B. Scully Syrup north of the Canal. By 1950 the north portion of the Site continues to be occupied by P.B. Scully, and the south end by American Molasses Company. Between 1950 and 1975 the segment of the Michigan Canal that protruded north from the main canal was filled, and the P.B. Scully Syrup Company was converted into a parking lot. Sanborne Maps from 1975 through 1990 continue to show the Michigan Canal through the center of the Site. Between 1975 and 1990 the south portion of the Site has also been converted into a parking lot. Sanborne Maps indicate that between 1990 and 1994 the entire Site was converted into a parking lot. This is confimed by the Sanborne Maps and STS reference Plat of Survey dated February 22, 1994 (included in the 1994 Phase I Environmental Assessment in Appendix "B"). The Site currently continues as a parking lot with asphalt covering.

When compared to a 1994 STS Phase I Environmental Report, the Sanborne Maps contradict the precise time of the Ogden Slip filling. In the STS Report, geological reports quote 1986 as the beginning of filling the Slip. A 1990 STS aerial photograph shows the Slip has been filled, whereas the Sanborne Map shows the Canal remaining through the Site. The STS Report also indicates that American Molasses was sold to Revere Sugar between 1975 and 1987.

IV. Environmental and Geological Reports

Appendix "B" contains the relevant environmental and geological reports obtained for the Site. These include the 2002 STS Radiological Investigation, 2002 English Company Phase I and II Environmental Assessments, 1994 STS Phase I Environmental Assessment, which only covers the central portion of the Site, the 1994 STS Geological Survey. An additional radiological investigation is currently underway by STS to identify the "type" of radiological material discovered in the elevated radioactive boring from the first investigation. This survey will use gamma-spectrometry as the identification methodology, and is tentatively scheduled for November 21, 2002.

Thorium

The Site at 319 East Illinois Street falls within the Streeterville Thorium Investigation (Lindsay Light II) area as indicated in the City of Chicago Map in Appendix "A". The Site is categorized for "Suspected Thorium" and labeled "Proposed Adams Mark Hotel". The USEPA has determined that the former Lindsay Light Company and its' successor, Kerr McGee, are generators of the Thorium radioactive source material. Appendix "C" contains Thorium background information, USEPA Lindsay Light II Updates, and USEPA information concerning Thorium from Lindsay Light I and other Kerr-McGee NLP cleanup sites.

STS Consultants performed their subsurface gamma radiation investigation in September 2002. The investigation was non-specific for the "type" of radioactive material, and no physical samples were actually retrieved. All borings were tested for gamma readings with results from 1000 to 9000 counts in 30 borings and 3600 to 52000 counts in Boring number B-27. B-27 was the only boring that exceeded the USEPA cleanup level of 7.1 pCi/g (approximately 15000 counts). HBE has overlaid the specific location of this Boring with the location of the previous Ogden Slip. The location is indicated on the "Site Map" in Appendix "A". It appears that this location is within two feet of the north Ogden Slip boundary.

The arithmetic average of all gamma readings, excluding B-27, was 4044 counts. HBE has divided the Site into 3 sections: South of the previous Ogden Slip, the Center-Ogden Slip area, and North of the Ogden Slip. This South averaged 2881 counts, the Center 4895 counts, and the North 4356 counts. This information is presented in a single strip form in Appendix "D" along with the boring locations. Color codes on the strip indicate approximate depths of the highest readings for each hole. According to USEPA records the background level for the North Columbus thorium cleanup site was approximately 6300 counts.

According to the survey information provided for the Chicago City Front Center (Appendix "A"), and the STS Survey, Boring, B-27 was taken within two feet of the edge of the former Ogden Slip. In addition, the current elevation at B-27 of +8, indicates that at least two feet of fill depth has been added above the final Ogden Slip elevation of +6 in 1990.

Lead

The downtown Chicago, IL area has been categorized by the Illinois EPA as containing somewhat higher PNA and Lead materials in soil due to the residuals from the Chicago Fire. The English Company Phase II Environmental Investigation showed some elevated PNA levels at the Site, but the levels were below action levels. One of four borings showed a Lead level of 8.57 TCLP that exceeded the RCRA "hazardous material" level of 5.0 TCLP. This boring was taken in the north portion of the Site at one of four planters located in the parking lot. The other three borings were located at the three remaining planters (see Appendix "A", STS 1994 Plat).

V. Site Construction and Investigative Work Plan

General

The Typical Site Construction shall consist of a drilled pier foundation system (Appendix "E"). The top layer of soil shall be removed starting at +12 grade at East Illinois Street (north end), and cutting to a "maximum" depth of 4'-6" depth at elevation +7'-6" at North Water Street (south end). Approximately 255 drilled piers shall be placed at the locations as shown in Appendix "E", and shall extend down to hardpan stratum at a depth of approximately 80 feet. Nine (9) 12 foot x 12 foot x 12 foot deep trenches shall be made to remove soil for elevator pits at both ends of the Site. All structural foundations shall be poured in-place within the excavated soil area. All utilities including electrical lines, sanitary sewers, water supplies, telephone, natural gas and communication lines will be separately trenched to their required depth without disturbance of adjacent soils.

Notification

Two weeks prior to any Site work, written notification shall be delivered to the USEPA Region 5 Office indicating the start date for the planned excavation work and site preparation. Any revisions to the start date after the two-week time shall be immediately conveyed by e-mail to the Region 5 designated site coordinator.

Health and Safety Plan

In order to protect the workers, consultants, and general public, and at the Construction Site, a strict Health and Safety Plan shall be instituted. The Plan shall incorporate all of the applicable elements specified in the USEPA Generic Health and Safety Plan, and OSHA Standards for the Construction Industry 29CFR1926 (Appendix "F"). An independent Environmental Consultant shall be hired for project over-site. This consultant shall be the designated "competent authority" for the project, and shall be pre-approved by the USEPA. All workers at the Site shall be trained in the excavation and handling of radioactive materials according to USEPA Regulations.

Lead Investigative Work Plan

Plans are currently being made to re-test and verify soil samples at the elevated lead location shown in the English Phase II investigation and at additional Site locations. If the re-test results are duplicated, the "extent" of lead contamination shall be delineated at the location by obtaining additional boring samples in the immediate vicinity of the original boring. If the cleanup criteria of 5.0 TCLP is exceeded at this location or any other test borings, the lead shall be removed according to USEPA Regulations as a Hazardous material. Disposal of the lead-contaminated material shall be at a Landfill certified to receive Hazardous Waste. If lead-contaminated soil is found to overlap with Thorium-contaminated soil, the soil shall removed according to USEPA Order.

Thorium Investigative Work Plan

Over-site of the construction work shall be coordinated between the General Contractor Superintendent and the designated Environmental Consultant. The Environmental Consultant shall be legally independent of the General Contractor, and shall make all final determinations regarding the Investigative Work Plan.

During removal of the Site asphalt covering and excavated soil, the potential Thorium contamination in the first 1-5 feet of soil depth shall be identified utilizing a field laboratory with technicians having been certified to test radioactive materials. The test methodology, cleanup criteria, and laboratory shall be USEPA approved. The soil shall be removed in quantities of 5 foot x 3 foot x 18-inch deep lifts. Each bucket of soil shall be tested for gamma radiation count. If the gamma count exceeds cleanup criteria, the soil shall be considered contaminated, shall be deposited in sealed containers and shipped by the Generator to Utah in accordance with USDOT Regulations under the Hazardous Materials Transportation Uniform Safety Act. Kerr McGee protocol shall be utilized for the containers and shipment. All non-contaminated soil shall be used as fill or removed from the Site.

Subsurface gamma radiation screening shall also be used for each drilled pier location to a depth of 12 feet below the north end elevation. This requires 255 borings to be made, one for each pier location. Where the cleanup criteria is exceeded, all pier auger cuttings shall be considered as contaminated waste, and shall be deposited in sealed containers for shipment as indicated above. All non-contaminated soil shall be used as fill or shall be removed off-site.

Where utilities for sewer, sanitary, electrical, gas, communication and other lines enter/exit the Site, pre-trench borings shall be obtained at 6-foot intervals to the specified depth of each utility service. Each boring shall be tested for gamma radiation, and where counts exceed the cleanup criteria, the soil for 10 feet on all sides of the boring shall be removed as contaminated waste in sealed containers as noted above.